

VACCINE-PREVENTABLE DISEASES

Eradication of wild poliovirus in African region

On 25 August 2020, the African Regional Certification Commission declared that Africa is free of wild poliovirus. This milestone is a big stride towards achieving the goal of global polio eradication. Polio is targeted to be the second human disease, after smallpox, globally eradicated through vaccination.

Polio is a viral illness that can cause sudden weakness and permanent paralysis or death in previously healthy individuals, often children. There are three serotypes of wild poliovirus, types 1, 2 and 3. In 1988, when the Global Polio Eradication Initiative was launched, polio was found in more than 125 countries of the world and paralysed more than 350 000 people that year. Polio used to cause large outbreaks throughout the world and in Africa. The last case of wild poliovirus in South Africa was in 1989. The last case of wild poliovirus type 1 in Africa was from Nigeria, 2016. Wild poliovirus type 2 has been declared

globally eradicated in 2015 and type 3 in 2019. Globally there are two countries remaining endemic for wild poliovirus type 1, Pakistan and Afghanistan.

Polio is preventable through immunization with polio vaccine, either injectable or oral. Polio vaccination will continue until eradication of wild poliovirus globally. There remains work to be done, as wild poliovirus remains a threat while still existing anywhere in the world. Additionally, circulating vaccine derived poliovirus still causes small outbreaks. Immunization against polio remains the foundation of polio eradication. The declaration of Africa as free of wild poliovirus shows that the prospect of global polio eradication is achievable.

For more information see www.africakicksoutwildpolio.com. For a documentary of South African polio survivor's stories, see <https://www.nicd.ac.za/diseases-a-z-index/poliomyelitis/>

Source: Centre for Vaccines and Immunology, NICD-NHLS; melindas@nicd.ac.za

SEASONAL DISEASES

Invasive meningococcal disease (IMD) surveillance update

January to August 2020

At the end of the winter months we continue to see few cases of invasive meningococcal disease (IMD) in South Africa. From January until the end of August 2020 only 30 cases of laboratory-confirmed IMD have been reported through the surveillance network. This is far less than in the equivalent time-period in 2018 (79 cases) and 2019 (70 cases) (Figure 1). This reduction may be due to measures implemented nationally to reduced transmission of respiratory droplets through social distancing of persons, school closures and mask-wearing. Therefore, *Neisseria meningitidis* bacteria (carried asymptotically in the human oropharynx and spread through respiratory droplets) transmission may also have been affected. While changes in health-seeking behaviour could have contributed to reductions, this is unlikely as invasive meningococcal disease is a severe illness.

IMD has occurred sporadically throughout the year. Most cases are from the Western Cape Province (14 cases, 47%), followed by Eastern Cape and Gauteng (6 cases each, 20%), and KwaZulu-Natal and Mpumalanga provinces (2 cases each, 7%). Thirty-seven percent (11/30) of IMD episodes occurred in children <5 years of age. Of the isolates available for serogrouping (21/30), serogroup B (10/21, 48%) was the most predominant followed by serogroup W (6, 29%), Y (3, 14%) and C (2, 10%).

Meningococcal disease has the potential to cause clusters and outbreaks. Therefore, please note that meningococcal disease is a category 1 notifiable medical condition (NMC) and any clinically suspected or laboratory-confirmed case should be reported immediately to the provincial Communicable Disease Control Coordinators to ensure appropriate contact tracing, responsible prescribing of chemoprophylaxis and case counting.

SEASONAL DISEASES

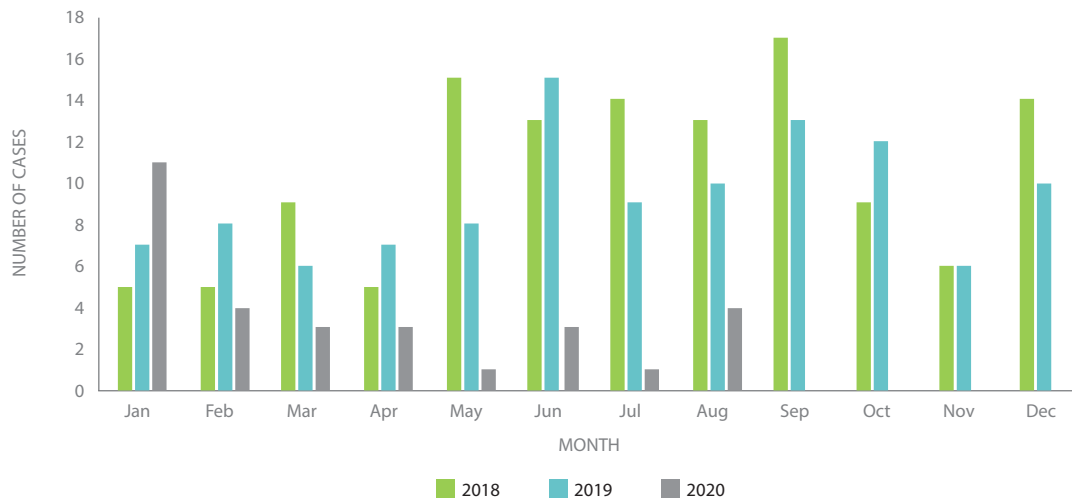


Figure 1. Number of invasive meningococcal disease cases reported to the GERMS-SA surveillance programme by month and year, January 2018 through August 2020, N=266

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; cherylc@nicd.ac.za

Alert: malaria transmission risk season

The malaria transmission season in southern Africa traditionally commences around the start of summer and is largely determined by climatic factors. Malaria control measures in South Africa's three endemic provinces (KwaZulu-Natal, Mpumalanga, and Limpopo) in the form of indoor residual insecticide spraying, are intended to interrupt transmission by reducing populations of vector mosquitoes, and to detect, report, and investigate malaria cases and clusters. The current COVID-19 pandemic has negatively impacted important public health programmes, such as tuberculosis and childhood vaccination, by shifting the priorities of healthcare workers and available funds to COVID-19-related activities, and also by discouraging the public from visiting clinics and other healthcare facilities. Restrictions on travelling had the effect of limiting importation of malaria, but these have now been lifted. While the peak of the pandemic appears to have past, it is important not to forget that malaria is another major public health problem. At the community level, malaria control programme activities need to proceed timeously, with necessary COVID-19-related precautions (e.g. small group spraymen training and operations, use of appropriate personal protective equipment, etc). At individual level, members of the

public need to be reminded about the risks of malaria and about preventive actions such as chemoprophylaxis and antimosquito measures, particularly when travelling across the now-open borders to high-risk neighboring countries. Healthcare workers need to remember that there is an overlap between early malaria and COVID-19 clinical presentations, namely that both produce febrile 'flu-like symptoms. The overlap between these infections continues with more serious infections, because severe malaria frequently results in a sepsis-like picture including respiratory distress (ARDS) that can clinically resemble COVID-19 lung involvement. Unrecognised and untreated malaria can rapidly progress to severe illness with a high mortality, and we again remind readers that even non-malaria-endemic provinces (particularly Gauteng) receive imported malaria cases throughout the summer months. Finally, sometimes malaria vector mosquitoes are transported accidentally, and transmit malaria outside their normal habitats to persons with no travel history. While traditionally, influenza was blamed for febrile illness in these 'minibus', 'luggage' or 'taxi-rank' malaria cases, malaria may now be mistakenly diagnosed as COVID-19. A high index of suspicion for malaria is essential to prevent unnecessary illness and deaths.

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; johnf@nicd.ac.za